SUPPLEMENTAL APPLICATION INFORMATION FOR
NINDS INSTITUTIONAL NRSA TRAINING PROGRAMS (T32)

Application Due Date: May 10, 2002

INTRODUCTION

Applicants for the NINDS Institutional NRSA Training Programs (T32) must follow the guidelines outlined in the following documents:

1. NIH National Research Service Award Institutional Research Training Grants (PA-00-103): http://grants.nih.gov/grants/guide/pa-files/PA-00-103.html

2. PHS 398 application kit: http://grants.nih.gov/grants/funding/phs398/phs398.html

3. National Research Service Award (NRSA) Stipend Increase and Other Budgetary Changes Effective for Fiscal Year 2002 (NOT-OD-02-028): http://grants.nih.gov/grants/guide/notice-files/NOT-OD-02-028.html

Note: All applications assigned to the NINDS will be reviewed by the NINDS Training Grant and Career Development Review Committee (NST): http://www.csr.nih.gov/committees/members.asp?ABBR=NST

The information about the training program should be organized in a way that addresses the following review criteria:

- The objectives, design and direction of the training program;

- The caliber of preceptors in terms of successful competition for research support;

- The training environment, e.g., institutional commitment, quality of facilities, availability of appropriate courses, and availability of research support;

- The recruitment and selection plan for trainees and the availability of high quality candidates;

- The research training record as determined by the success of former trainees in establishing independent and productive scientific careers; and

- The record of former trainees in obtaining individual research awards, fellowships and career awards.

Please also note that each application must present a detailed plan on the recruitment of individuals from underrepresented minority groups, as well as a plan for providing instructions in the responsible conduct of research.

To better manage the presentation of information and to assure a fair and thorough evaluation, we have compiled the following suggestions for the narrative and tables that are commonly considered by NST. Since certain data are more readily understood in tabular form, examples of tables are provided to illustrate formats that have proven to be useful to reviewers. The tables must be accompanied by supporting narratives. During the preparation of your application, please consider the following information, which is specifically requested in the instructions provided in the PHS 398 application kit.

PROGRAM DIRECTION

- Rationale for the proposed research training program, relevant background history, and the need for the research training proposed. Indicate how the proposed program relates to current training activities;
- Research experience and leadership of the program director; and
- Adequacy of the program administration and advisory structure.

PROGRAM FACULTY

- List the participating training faculty (primary department affiliation, role and percent effort in the program **(See Table 1 for a suggested format)**;
- For each of the participating faculty, list active and pending research grant support, e.g., Federal, non-Federal, institutional and contract support **(See Table 2 for a suggested format)**;
- Up-to-date Biographical Sketches;
- Nature and breadth of the research conducted by participating faculty members;
- Provide a list of training faculty collaborations and joint publications **(See Table 3 for a suggested format)**; and
- For each of the participating faculty, list all past and current predoctoral and postdoctoral trainees for whom the faculty member has served, or is serving as thesis advisor or sponsor (limited to 10 years) **(See Table 4 for a suggested format).**

TRAINING PROGRAM

- Goals of the program and rationale for program organization;
- Mechanisms and criteria for recruitment and selection of trainees;
- Mechanisms to monitor and guide the trainees;
- Nature and extent of available research opportunities, courses, and seminars;
- Provisions to promote cohesiveness of the program;
- Opportunities for collaborative research outside the sponsors' laboratories;

- Details of combined medical and basic science training programs, if relevant;

- Special programmatic features; and

- List other institutional training grant support in which the faculty on this training grant participate **(See Table 5 for a suggested format).**

TRAINEES AND CANDIDATES FOR TRAINING

- Provide 10 years of data on the size of the predoctoral and postdoctoral applicant pool and their training progress, e.g., number of trainees who applied, who were offered admission, who entered the program, who completed the program, who are currently in the program, and who left the program **(See Table 6a and 6b for a suggested format);**

- Qualifications of the prospective trainees (previous institution attended, GRE score and GPA for Predoctoral trainees; similar information for postdoctoral trainees) **(See Table 7a and 7b for a suggested format);**

- Current Predoctoral and postdoctoral trainees in the training program **(See Table 8a and 8b for a suggested format);**

- Summary of predoctoral and postdoctoral trainee status for the past 10 years **(See Table 9a and 9b for a suggested format);** and

- List representative publications by past and current Predoctoral and Postdoctoral trainees **(See Table 10a and 10b for a suggested format).**

ENVIRONMENT

- Institutional support for the training program;

- Other sources of support for trainees supervised by participating faculty members;

- Facilities and other resources important to the program (including clinics, if relevant);

- Numbers of trainees currently affiliated with participating laboratories;

- Accessibility and use of research, instructional, and clinical opportunities at other institutions that enhance the training experience; and

- List all academic departments and degree-granting programs affiliated with faculty trainees in this program **(See Table 11 for a suggested format).**

PLANS FOR THE RECRUITMENT OF UNDERREPRESENTED MINORITIES

As described in the guidelines for NIH National Research Service Award Institutional Research Training Grants (See Introduction), the NIH remains committed to increasing the participation of individuals from underrepresented minority groups in biomedical and behavioral research. All competing applications for institutional NRSA research training grants must include a specific plan to recruit and retain underrepresented minorities in the training program. In addition, all competing continuation applications must include a report on the recruitment and retention of underrepresented minorities during the previous award period. If an application is received without a plan or without a report on the previous award period, the application will be considered incomplete and will be returned to the applicant without review **(See Table 12a and 12b for a suggested format).**

PLANS FOR INSTRUCTION IN THE RESPONSIBLE CONDUCT OF RESEARCH

As described in the guidelines for NIH National Research Service Award Institutional Research Training Grants, it is the policy of the NIH that every predoctoral trainee supported by an institutional research training grant must receive instructions in the responsible conduct of research. Applications must describe a program to provide instructions in scientific integrity and the responsible conduct of research. Although the NIH does not establish specific curricula or formal requirements, all programs are encouraged to consider instructions in the following areas: conflict of interest, responsible authorship, policies for handling misconduct, policies regarding the use of human and animal subjects, and data management. The report should provide the following information:

- The plans must address the subject matter of the instruction;
- The format of the instruction;
- The degree of faculty participation;
- Trainee attendance; and
- The frequency of instruction.

The SRG will evaluate the plans for training in the responsible conduct of research after the overall determination of merit, so that the quality of the plans will not be a factor in the determination of the priority score. Reviewers are asked to assess the plans on the basis of the appropriateness of topics, format, amount and nature of faculty participation; and the frequency and duration of instructions **(See Table 13 for suggested topics).**

TABLE 1. PARTICIPATING FACULTY MEMBERS [Alphabetically by faculty member]

NAME & DEGREE OF FACULTY MEMBER	RANK	(1) PRIMARY APPT. (2) SECONDARY APPT.	RESEARCH INTEREST	ROLE & PERCENT EFFORT
Abrams, Jane D., Ph.D.	Assoc. Prof.	(1) Neuroscience (2) Physiology	Developmental Genetics in Drosophila	Program Director, Trainer 20 %
Anderson, John J., Ph.D.	Asst. Prof.	Anatomy and Cell Biology	Acetylcholine Receptors: Identification and properties	Trainer 15%
Mack, Thomas P., Ph.D.	Assoc. Prof.	Physiology	Genetics of Neuronal Cell Division	Trainer 10%
Smith, James L., M.D.	Assoc. Prof.	Neurology	Neurodegenerative Disorders	Trainer 15%
Zachary, Jeffrey D., MD., Ph.D.	Professor	(1) Neuroscience (2) Anatomy and Cell Biology	Neurobiology of Drosophila	Trainer 5%

- This table provides a list of all participating training faculty.
- Refer to instructions in the PHS 398 kit, Section V (see: "Program Faculty").

TABLE 2. ACTIVE AND PENDING RESEARCH SUPPORT [Alphabetically by faculty member]

FACULTY MEMBER	FUNDING SOURCE & GRANT NUMBER	GRANT TITLE	PROJECT PERIOD	CURRENT YEAR DIRECT COST
Abrams, Jane D.	NIH R01 NS34194	Developmental Genetics in Drosophila	05/99 to 05/04	$450,000
	NSF PCM 80-12935	Cell Culture Center	12/98 to 12/03	$80,000
Anderson, John J.	NIH R01 NS76259-01	Structure and Function of Acetylcholine Receptors	05/00 to 11/05	$90,000
	NIH K02 MH00091-03	Purification & Identification of Receptors	11/98 to 11/03	$40,000
Mack, Thomas P.	American Neurological Assoc.	Control of Angiogenesis during brain development.	03/97 to 03/02	$85,000
	NSF PCM 80-12935	Cell Culture Center	12/98 to 12/03	$80,000
	NIH PO1 NS71802-02 (J. Jones, P.D.)	Individual research project: "Genetic Control of Neuronal Cell Division"	10/97 to 12/02	$65,000
Smith, James L.	None			
Zachary, Jeffrey D.	NIH (Pending) I R01 GM28507-01	Meiosis in Drosophila		

- This table illustrates the competitive research support for the **current year** available to the participating faculty members.
- Please enter each participating faculty member and indicate "NONE" for those with no current or pending support.
- For Program Project or Research Center Grants, include only those direct costs for the **current year** awarded to the participant designated as "Principal Investigator" of an individual research project.
- Include pending applications, but omit the project period and direct cost data.
- Exclude T32 (research training) grants, which are listed in Table 5.
- Refer to instructions in the PHS 398 kit, Section V (see: "Program Faculty").

TABLE 3. COLLABORATIONS AND CO-AUTHORSHIP AMONG THE TRAINING FACULTY [Alphabetically by faculty member]

COLLABORATORS	PROJECTS	CO-AUTHORSHIP OR GRANT
Abrams – Zachary	Developmental Genetics in Drosophila: Role of Regulatory Proteins in Gene Expression.	Yes
Anderson – Zachary	Acetylcholine Receptor neurobiology: Receptor Purification and Properties.	Yes
Mack – Smith	Cell Neurobiology and Neurogenetics.	Yes
Smith – Zachary	Neurodegenerative Disorders: Alzheimer's Disease, Parkinson's Disease	Pending
Zachary – Abrams – Anderson	Neurobiology of Drosophila	Yes

- Refer to instructions in the PHS 398 kit, Section V (see: "Program Faculty").

TABLE 4. PAST AND CURRENT PREDOCTORAL AND POSTDOCTORAL TRAINEES OF PARTICIPATING FACULTY MEMBERS
[Alphabetically by faculty member, and Past and Current Trainees]

FACULTY MEMBER PAST & CURRENT TRAINEES	PREDOC or POSTDOC	TRAINING PERIOD	PRIOR ACADEMIC DEGREE Degree	Year	Institution	TRAINEE'S CURRENT POSITION or SOURCE OF SUPPORT
Abrams, Jane D.						
Past Trainees						
Perez, J.	Postdoc.	92-95	Ph.D.	92	Harvard	NIH 1 T32NS05066-01
Current Trainees						
*Bunting,C.	Predoc.	95	BA	94	Vanderbilt	NIH 1 T32 MH05066-01
Anderson, John J.						
Past Trainees						
None						
Current Trainees						
Baker, A.	Predoc.	98	BS	97	Cornell	NIH 2 T32 NS05964-06
Mack, Thomas P.						
Past Trainees						
Howard, R.	Postdoc.	93-95	Ph.D.	93	Purdue	Asst. Prof. Pathology, Yale Med. School
Current Trainees						
None						
Smith, James L.						
Past Trainees						
Schwartz, A.	Predoc.	89-93	BA	89	U. of WI.	Asst. Scientist, Scripps Res. Foundation
Current Trainees						
Smith, D.	Postdoc.	99	Ph.D.	96	U. of CT.	NIH 1 F31 GM06942-01
Zachary, Jeffrey D.						
Past Trainees						
None						
Current Trainees						
None						

- This table illustrates the training experience of the participating faculty members and the career status of their trainees. Whenever possible, information from the past 10 years is helpful.
- Enter every participating faculty member and indicate "NONE" in each category with no trainees.
- (*) Identify trainees who have received support from this training grant (for renewal applications).
- List the current rank, title, and institutional affiliation for former trainees. Also identify the funding source and grant number of support to current trainees.
- Refer to instructions in the PHS 398 kit, Section V (see: "Program Faculty").

TABLE 5. OTHER INSTITUTIONAL TRAINING GRANT SUPPORT [Alphabetically by program director]

PROGRAM DIRECTOR	FUNDING SOURCE & GRANT NUMBER	AREA OR TITLE	PROJECT PERIOD	TOTAL # OF FACULTY MEMBERS	TOTAL # OF TRAINEES SUPPORTED THIS YEAR	NAMES OF FACULTY MEMBERS ALSO INCLUDED IN THE PRESENT APPLICATION
Abrams, Jane	NS 05964-11	Cellular and Molecular Neurobiology	07/98-06/03	25	8 Postdocs	Abelson Brown Fields Johnson Watson
Fields, Joan	Developmental Disorders Assoc. 1996-12	Genetics and Development	07/97-06/02	14	4 Postdocs	Benton Brown Fields Kendall Watson
Chen, James	GM 04823-01	Systems and Integrative Biology	Pending	19	4 Postdocs	Fields Greenspan Gilman Jenson Watson
Mack, Thomas	NS 02708-07	Developmental Neurobiology	07/00-06/05	7	2 Predocs 2 Postdocs	Abelson Benton Brown Greenspan Johnson Kendall Watson
Zachary, Jeffrey	MH 03625-09	Neuroscience Training Program	07/00-06/05	6	4 Postdocs	Benton Gilman Fields Johnson Lowenstein Norton

- For funding sources indicate the grant number and current year of support.
- When both predoctoral trainees and postdoctoral fellows are supported on a single training grant, please indicate how many of each.
- Refer to instructions in the PHS 398 kit, Section V (see: "Program Faculty").

TABLE 6a. PARTICIPATING GRADUATE PROGRAM ADMISSION AND COMPLETION RECORDS BY ENTERING CLASS [Alphabetically by Program]

PROGRAM	Numbers of Trainees[1]			Outcomes of Those Who Enrolled[2]				Status of Those Who Left Program with No Degree
Class Entrance Year	Applying (Eligible)	Accepted (Eligible)	Enrolled (Eligible)	Still in Program	Degree Earned | Ph.D.	Other	None	
DEPARTMENT OF ANATOMY AND CELL BIOLOGY TRAINING PROGRAM								
1997	48 (37)	17 (11)	8 (5)	2	6	1 (MS)	1	1 in MSTP Program
1998	53 (39)	20 (12)	9 (1)	5	2	2	0	
1999	61 (45)	17 (13)	8 (5)	3	2	3 (MS)	0	
2000	57 (47)	21 (14)	10 (7)	10	0	0	0	
INTERDEPARTMENTAL TRAINING PROGRAM IN NEUROSCIENCE								
1998	52 (41)	21 (15)	12 (9)	3	7	1 (MS)	1	1 in Bioengineering Ph.D. Program
1999	57 (43)	24 (16)	13 (8)	5	6	0	2	1 in another institution, 1 in Medical School
2000	65 (49)	21 (17)	12 (9)	5	4	1 (MS)	2	1 in Veterinary School, 1 in MBA program

TABLE 6b. PARTICIPATING POSTDOCTORAL PROGRAM ADMISSION AND COMPLETION RECORDS [Alphabetically by Program]

PROGRAM	Numbers of Trainees[1]			Outcomes of Those Who Enrolled	Status of Those Who Left Program
Entrance Year	Applying (Eligible)	Accepted (Eligible)	Enrolled (Eligible)	Still in Program	
DEPARTMENT OF ANATOMY AND CELL BIOLOGY TRAINING PROGRAM					
1999	61 (45)	17 (13)	8 (5)	3	
2000	57 (47)	21 (14)	10 (7)	10	
2001	61 (59)	16 (10)	7 (4)	9	
INTERDEPARTMENTAL TRAINING PROGRAM IN NEUROSCIENCE					
1998	65 (49)	21 (17)	12 (9)	5	1 at Univ. Washington, Assistant Prof.
1999	61 (51)	25 (18)	14 (11)	12	1 at Univ. Michigan, Assist. Prof; 1 at Eli Lilly, Staff Scientist
2000	65 (53)	20 (14)	11 (8)	11	

- This table illustrates the applicant pool and attrition records for each participating graduate program and department. Whenever available, information from the last ten years is helpful.
- Do not include trainees admitted solely to obtain master's degrees.
- Refer to instructions in the PHS 398 kit, Section V (see: "Trainee Candidates").

[1] Please indicate in parentheses the number of trainees who are eligible (based on citizenship or permanent residency status) for support from this grant.
[2] The number of trainees listed in these columns should total the number who enrolled in that year's entering class.

TABLE 7a. PREDOCTORAL APPLICANT POOL FOR MOST RECENT YEAR

YEAR/PROGRAM TRAINEES	PREVIOUS INSTITUTION	DEGREE YEAR	GRE SCORES V | Q | ADV	UNDERGRAD. GPA	ACCEPTED	ENROLLED	GRANT SUPP.	CITIZENSHIP US	PERM.	FORE.
DEPARTMENT OF ANATOMY AND CELL BIOLOGY TRAINING PROGRAM										
#1	U. of WI	DVM '98	680 | 720 | 750	3.63	Y	Y	N	Y		
#2*	Stanford	BS '97	690 | 680 | 740	3.72	N					
#3*	Yale U. Wash. U.	BA '98 MS '99	700 | 710| 640	3.78	Y	Y	Y		Y	
INTERDEPARTMENTAL TRAINING PROGRAM IN NEUROSCIENCE										
#1	MI State U.	BA '99	710 | 710 | 730	3.60	Y	Y	Y	Y		
#2*	MIT	BS '98	660 | 730 | 720	3.29	Y	N				
#3	U. of Co.	BA '98	650 | 630 | 710	3.17	N					
#4*	U. of Rochester	BS '97	690 | 730 | 720	3.71	Y	Y	N		Y	

TABLE 7b. POSTDOCTORAL APPLICANT POOL FOR MOST RECENT YEAR

YEAR/PROGRAM TRAINEES	PREVIOUS INSTITUTION	DEGREE YEAR	ACCEPTED	ENROLLED	GRANT SUPP.	CITIZENSHIP US	PERM.	FORE.
DEPARTMENT OF ANATOMY AND CELL BIOLOGY TRAINING PROGRAM								
#1	U. of Washington	Ph.D. '99	Y	Y	Y	Y		
#2*	Stanford	Ph.D. '97	Y					
#3*	Harvard U. Johns Hopkins U.	M.S. '97 M.D. '99	Y	Y	Y		Y	
INTERDEPARTMENTAL TRAINING PROGRAM IN NEUROSCIENCE								
#1	University of MD.	Ph.D. '99	Y	Y	Y	Y		
#2*	Harvard U.	M.D. '98	Y	N				
#3	U. of Chicago	Ph.D. '98	Y					
#4*	U. of Mass.	Ph.D. '97	Y	Y	Y		Y	

- Trainees must be identified by number, rather than by name, to safeguard their privacy.
- (*) identify applicants who are eligible (based on citizenship or permanent residency status) for training grant support.
- Refer to instructions in the PHS 398 kit, Section V (see: "Trainee Candidates").

TABLE 8a. CURRENT PREDOCTORAL TRAINEES ENROLLED IN THE NEUROSCIENCE TRAINING PROGRAM

PREDOCTORAL TRAINEES	PREVIOUS INSTITUTION	DEGREE YEAR	GRE SCORES V | Q | ADV OR MCAT SCORES			UNDERGRAD GPA	PRECEPTOR	YEARS IN PROGRAM	YEARS OF SUPPORT FROM THIS GRANT (For renewal applications only)
#1	U. of WI	DVM '99	680	720	750	3.63	Jones, J	99-	99-00
#2*	Stanford	BS '98	12	12	12	3.72	Unassigned	98-	98-
#3*	Yale U. Wash. U.	BA '97 MS '98	700	710	640	3.78	Felman, R.	98-	98-

TABLE 8b. CURRENT POSTDOCTORAL TRAINEES ENROLLED IN THE NEUROSCIENCE TRAINING PROGRAM

PREDOCTORAL TRAINEES	PREVIOUS INSTITUTION	DEGREE YEAR	PRECEPTOR	YEARS IN PROGRAM	YEARS OF SUPPORT FROM THIS GRANT (For renewal applications only)
#1	UCLA	Ph.D. '99	Jones, J	99	None
#2*	Stanford U.	M.D. '98	Unassigned	98-	98-
#3*	Harvard U. Georgetown U.	M.S. '97 Ph.D. '98	Felman, R.	98-	98-99

- This table illustrates the educational background and credentials of the predoctoral trainees identified with the training program. For example, a renewal application for a large training grant might list only trainees who have actually received support from the grant; an application for a new grant might include all of the predoctoral trainees in the major participating departments.
- Trainees must be identified by number, rather than by name, to safeguard their privacy.
- (*) Identify trainees who are eligible (based on citizenship or permanent residency status) for training grant support.
- Refer to instructions in the PHS 398 kit, Section V (see: "Trainee Candidates").

TABLE 9a. SUMMARY OF STATUS OF PREDOCTORAL TRAINEES FOR THE PAST TEN YEARS

PREDOCTORAL TRAINEE (Mentor) Entering Class	SOURCES OF SUPPORT FOR EACH PREDOCTORAL TRAINEE Grant Year[1]/Academic Years -01 -97	-02 -98	-03 -99	-04 -00	-05 -01	RESEARCH TOPIC	CURRENT POSITION
COX, C (ABRAMS) '98	TG1	RG	RG			Cloning of Human Timeless Genes.	Postdoc with J. Smith, UCLA School of Medicine
JOHNSON, J (ZACHARY) '99		TG2*	TG2*	RG	RG	Sensory Integration in Avian Vestibular System.	Postdoc with C. Chen, Univ. of CA at Davis
SMOLOCK, Y (SMITH) '97			UF	OS	TG	Alpha-Adenoceptors in Alzheimer's and Parkinson's Diseases.	In Training
THOMPSON, G (MACK) '00					TG1	Synapse formation in the Green monkey cerebellum.	In Training

TABLE 9b. SUMMARY OF STATUS OF POSTDOCTORAL TRAINEES FOR THE PAST TEN YEARS

POSTDOCTORAL TRAINEE (Mentor) Starting Year	SOURCES OF SUPPORT FOR EACH POSTDOCTORAL TRAINEE Grant Year[1]/Academic Years -01 -97	-02 -98	-03 -99	-04 -00	-05 -01	RESEARCH TOPIC	CURRENT POSITION
JAMES, T (ZACHARY) '98		RG	TG2*	RG		Structure and Function of Acetylcholine Receptors	Research Assistant Prof. Univ. of CA at Irvine
MADDEN, I (SMITH) '96			UF	TG1	TG	Control of Angiogenesis during brain development	Asst. Professor of Neurobiology, U. Michigan

- This table illustrates the patterns of support for all predoctoral and postdoctoral trainees identified with the program over the past ten years and documents their career status.
- The sources of support for trainees are categorized as Training Grants (TG), Research Grants (RG); University Fellowships (UF), and Other Support (OS). Different training grants should be labeled TG1, TG2, etc. with sources and grant numbers for each listed in the legend.
- Current positions of the trainees should include their current rank, title, and institutional affiliation.
- (*) For competing renewal applications indicate all trainees who received support from this grant, including those who did not complete the training program for any reason.
- Refer to instructions in the PHS 398 kit, Section V (see: "Trainee Candidates").

[1] For competing renewal applications.

TABLE 10a. PUBLICATIONS (INCLUDING ABSTRACTS) BY CURRENT AND PAST PREDOCTORAL TRAINEES DURING THEIR TRAINING [Alphabetically by Trainee]

TRAINEE NAME	PUBLICATIONS (authors, year, title and journal)
Brown, B.	Abrams, J. and Jones J., 1998, "Repeated Sequences in Drosophila," J. Mol. Biol., 197:503-510. Corman, T., Walker, J.D., and Zachary, J. 1999, "Ontogeny of Tolerance to Alloantigens," Am. J. Anat., 198:156 (abstract)
*Greenstein, M	Anderson, J., and Chu, J., 2001, "Sympathetic Noradrenergic Innervation of Drosophila," Genetics (In press)
Thompson, P.	Miter, M.H., Owens, R., Mack, T., and Berg, L., 1999, "Insulin Treatment of Diabetic Rats," J. Comp. Neurol., 255:350-378.

TABLE 10b. PUBLICATIONS (INCLUDING ABSTRACTS) BY CURRENT AND PAST POSTDOCTORAL TRAINEES DURING THEIR TRAINING [Alphabetically by Trainee]

TRAINEE NAME	PUBLICATIONS (authors, year, title and journal)
Anderson, G.	Mack, T., Anderson, G., and Berg, L., 2001, "Serotonergic innervation of the hypothalamus," brain Res., 567: 770-779.
*Jones, C	Jones, C. and Chu, J., 2000, "Dopamine cell cultures: effects of neurotrophic factors" Cell (In press)
Sanders, L.	Sanders, L. and Abrams, J., 1998, "Apoptosis during rat brain development," J. Neuroscience, 225:887-890. Zachary, J., and Sanders, L. 2000, "Developmental Genetic in Drosophila," Society for Neuroscience Abstracts, 450:559 (abstract)

- For new applications, this information may be provided for predoctoral neuroscience trainees who have worked in participating faculty members' laboratories during the last five years.
- Please label abstracts clearly.
- (*) For competing renewal applications indicate all trainees who received support from this grant.
- Refer to instructions in the PHS 398 kit, Section V (see: "Trainee Candidates").

TABLE 11. ACADEMIC DEPARTMENTS AND DEGREE-GRANTING PROGRAMS AFFILIATED WITH FACULTY AND TRAINEES IN THIS PROGRAM [Alphabetically by unit]

DEGREE-GRANTING UNIT	NUMBER OF FACULTY MEMBERS		NUMBER OF Ph.D. CANDIDATES			NUMBER OF POSTDOCTORAL FELLOWS	
	Total in Unit	Participating in this application	Total in Unit	Eligible[1] and with participating faculty	Supported by this training grant[2]	Total in unit	With participating faculty members
Department of Anatomy and Cell Biology	45	14	38	12	2	50	15
Neuroscience Program	32	20	31	14	8	40	23
Department of Neurology, School of Medicine	25	5	30	5	3	28	12

[1] The term Eligible refers to support from this research training grant.
[2] For competing renewal applications.

TABLE 12a. MINORITY PREDOCTORAL APPLICANTS FOR THE LAST FIVE YEARS

YEAR	APPLIED	INTERVIEWED	ACCEPTED	MATRICULATED*	STILL IN THE PROGRAM	DEGREE GRANTED
2001	19	6	5	3	2	
2000	23	10	8	6	2	
1999	35	11	8	3	0	3
1998	23	5	4	2	0	2
1997	19	9	8	5	0	5

TABLE 12b. MINORITY POSTDOCTORAL APPLICANTS FOR THE LAST FIVE YEARS

YEAR	APPLIED	INTERVIEWED	ACCEPTED	MATRICULATED*	STILL IN THE PROGRAM
2001	8	5	3	3	2
2000	11	7	5	5	2
1999	15	9	4	3	0
1998	22	14	10	7	0
1997	18	12	11	8	0

- (*) Outcomes for students not in the program or who did not graduate should be explained in the narrative.
- Refer to instructions in the PHS 398 kit, Section V (see: "Recruitment of Individuals from Underrepresented Racial/Ethnic Groups").

TABLE 13. OUTLINE OF POSSIBLE TOPICS FOR INSTRUCTION IN RESPONSIBLE CONDUCT OF RESEARCH

A. Introduction - New dimensions of responsibility 1. Cases 2. Hearings 3. Publications 4. Professional and philosophical underpinnings of science 5. Format for the course - lectures and case studies	E. Conflict of interest 1. AAU/AAMC/AAHC guidelines 2. Ul and state guidelines
B. Proper gathering, interpretation, and retention of data 1. General principles of scholarly method 2. Background and new problems	F. Training in mentorship 1. Council on Graduate Schools guidelines 2. Ul regulations 3. Problems
C. Responsible authorship 1. Guidelines on responsible authorship 2. Problems	G. Human subjects 1. Basic ethical principles 2. Research regulation 3. Consent 4. Background and problems
D. Handling of misconduct 1. Agency guidelines 2. ORI 3. Ul policies on ethics in research	H. Use of animals in research 1. Background and history 2. Federal regulations 3. Ul policies 4. Ethical considerations and problems

- Refer to instructions in the PHS 398 kit, Section V (see: "Plan for Instruction in the Responsible Conduct of Research").

TABLE 1. PARTICIPATING FACULTY MEMBERS [Alphabetically by faculty member]

NAME & DEGREE OF FACULTY MEMBER	RANK	(1) PRIMARY APPT. (2) SECONDARY APPT.	RESEARCH INTEREST	ROLE & PERCENT EFFORT

- This table provides a list of all participating training faculty.
- Refer to instructions in the PHS 398 kit, Section V (see: "Program Faculty").

TABLE 2. ACTIVE AND PENDING RESEARCH SUPPORT [Alphabetically by faculty member]

FACULTY MEMBER	FUNDING SOURCE & GRANT NUMBER	GRANT TITLE	PROJECT PERIOD	CURRENT YEAR DIRECT COST

- This table illustrates the competitive research support for the **current year** available to the participating faculty members.
- Please enter each participating faculty member and indicate "NONE" for those with no current or pending support.
- For Program Project or Research Center Grants, include only those direct costs for the **current year** awarded to the participant designated as "Principal Investigator" of an individual research project.
- Include pending applications, but omit the project period and direct cost data.
- Exclude T32 (research training) grants, which are listed in Table 5.
- Refer to instructions in the PHS 398 kit, Section V (see: "Program Faculty").

TABLE 3. COLLABORATIONS AND CO-AUTHORSHIP AMONG THE TRAINING FACULTY [Alphabetically by faculty member]

COLLABORATORS	PROJECTS	CO-AUTHORSHIP OR GRANT

- Refer to instructions in the PHS 398 kit, Section V (see: "Program Faculty").

TABLE 4. PAST AND CURRENT PREDOCTORAL AND POSTDOCTORAL TRAINEES OF PARTICIPATING FACULTY MEMBERS
[Alphabetically by faculty member, and Past and Current Trainees]

FACULTY MEMBER PAST & CURRENT TRAINEES	PREDOC or POSTDOC	TRAINING PERIOD	PRIOR ACADEMIC DEGREE Degree | Year | Institution			TRAINEE'S CURRENT POSITION or SOURCE OF SUPPORT
FACULTY:						
Past Trainees						
Current Trainees						
FACULTY:						
Past Trainees						
Current Trainees						
FACULTY:						
Past Trainees						
Current Trainees						
FACULTY:						
Past Trainees						
Current Trainees						
FACULTY:						
Past Trainees						
Current Trainees						

- This table illustrates the training experience of the participating faculty members and the career status of their trainees. Whenever possible, information from the past 10 years is helpful.
- Enter every participating faculty member and indicate "NONE" in each category with no trainees.
- (*) Identify trainees who have received support from this training grant (for renewal applications).
- List the current rank, title, and institutional affiliation for former trainees. Also identify the funding source and grant number of support to current trainees.
- Refer to instructions in the PHS 398 kit, Section V (see: "Program Faculty").

TABLE 5. OTHER INSTITUTIONAL TRAINING GRANT SUPPORT [Alphabetically by program director]

PROGRAM DIRECTOR	FUNDING SOURCE & GRANT NUMBER	AREA OR TITLE	PROJECT PERIOD	TOTAL # OF FACULTY MEMBERS	TOTAL # OF TRAINEES SUPPORTED THIS YEAR	NAMES OF FACULTY MEMBERS ALSO INCLUDED IN THE PRESENT APPLICATION

- For funding sources indicate the grant number and current year of support.
- When both predoctoral trainees and postdoctoral fellows are supported on a single training grant, please indicate how many of each.
- Refer to instructions in the PHS 398 kit, Section V (see: "Program Faculty").

TABLE 6a. PARTICIPATING GRADUATE PROGRAM ADMISSION AND COMPLETION RECORDS BY ENTERING CLASS [Alphabetically by Program]

PROGRAM Class Entrance Year	Numbers of Trainees[1] Applying (Eligible)	Accepted (Eligible)	Enrolled (Eligible)	Outcomes of Those Who Enrolled[2] Still in Program	Degree Earned | Ph.D.	Other	None	Status of Those Who Left Program with No Degree
DEPARTMENT/PROGRAM:								
DEPARTMENT/PROGRAM:								

TABLE 6b. PARTICIPATING POSTDOCTORAL PROGRAM ADMISSION AND COMPLETION RECORDS [Alphabetically by Program]

PROGRAM Entrance Year	Numbers of Trainees[1] Applying (Eligible)	Accepted (Eligible)	Enrolled (Eligible)	Outcomes of Those Who Enrolled Still in Program	Status of Those Who Left Program
DEPARTMENT/PROGRAM:					
DEPARTMENT/PROGRAM:					

- This table illustrates the applicant pool and attrition records for each participating graduate program and department. Whenever available, information from the last ten years is helpful.
- Do not include trainees admitted solely to obtain master's degrees.
- Refer to instructions in the PHS 398 kit, Section V (see: "Trainee Candidates").

[1] Please indicate in parentheses the number of trainees who are eligible (based on citizenship or permanent residency status) for support from this grant.
[2] The number of trainees listed in these columns should total the number who enrolled in that year's entering class.

TABLE 7a. PREDOCTORAL APPLICANT POOL FOR MOST RECENT YEAR

YEAR/PROGRAM TRAINEES	PREVIOUS INSTITUTION	DEGREE YEAR	GRE SCORES V | Q | ADV	UNDERGRAD. GPA	ACCEPTED	ENROLLED	GRANT SUPP.	CITIZENSHIP US	PERM.	FORE.
DEPARTMENT/PROGRAM:										
DEPARTMENT/PROGRAM:										

TABLE 7b. POSTDOCTORAL APPLICANT POOL FOR MOST RECENT YEAR

YEAR/PROGRAM TRAINEES	PREVIOUS INSTITUTION	DEGREE YEAR	ACCEPTED	ENROLLED	GRANT SUPP.	CITIZENSHIP US	PERM.	FORE.
DEPARTMENT/PROGRAM:								
DEPARTMENT/PROGRAM:								

- Trainees must be identified by number, rather than by name, to safeguard their privacy.
- (*) identify applicants who are eligible (based on citizenship or permanent residency status) for training grant support.
- Refer to instructions in the PHS 398 kit, Section V (see: "Trainee Candidates").

TABLE 8a. CURRENT PREDOCTORAL TRAINEES ENROLLED IN THE NEUROSCIENCE TRAINING PROGRAM

PREDOCTORAL TRAINEES	PREVIOUS INSTITUTION	DEGREE YEAR	GRE SCORES V | Q | ADV OR MCAT SCORES			UNDERGRAD GPA	PRECEPTOR	YEARS IN PROGRAM	YEARS OF SUPPORT FROM THIS GRANT (For renewal applications only)

TABLE 8b. CURRENT POSTDOCTORAL TRAINEES ENROLLED IN THE NEUROSCIENCE TRAINING PROGRAM

PREDOCTORAL TRAINEES	PREVIOUS INSTITUTION	DEGREE YEAR	PRECEPTOR	YEARS IN PROGRAM	YEARS OF SUPPORT FROM THIS GRANT (For renewal applications only)

- This table illustrates the educational background and credentials of the predoctoral trainees identified with the training program. For example, a renewal application for a large training grant might list only trainees who have actually received support from the grant; an application for a new grant might include all of the predoctoral trainees in the major participating departments.
- Trainees must be identified by number, rather than by name, to safeguard their privacy.
- (*) Identify trainees who are eligible (based on citizenship or permanent residency status) for training grant support.
- Refer to instructions in the PHS 398 kit, Section V (see: "Trainee Candidates").

TABLE 9a. SUMMARY OF STATUS OF PREDOCTORAL TRAINEES FOR THE PAST TEN YEARS

PREDOCTORAL TRAINEE (Mentor) Entering Class	SOURCES OF SUPPORT FOR EACH PREDOCTORAL TRAINEE Grant Year[1]/Academic Years					RESEARCH TOPIC	CURRENT POSITION

TABLE 9b. SUMMARY OF STATUS OF POSTDOCTORAL TRAINEES FOR THE PAST TEN YEARS

POSTDOCTORAL TRAINEE (Mentor) Starting Year	SOURCES OF SUPPORT FOR EACH POSTDOCTORAL TRAINEE Grant Year[1]/Academic Years					RESEARCH TOPIC	CURRENT POSITION

- This table illustrates the patterns of support for all predoctoral and postdoctoral trainees identified with the program over the past ten years and documents their career status.
- The sources of support for trainees are categorized as Training Grants (TG), Research Grants (RG); University Fellowships (UF), and Other Support (OS). Different training grants should be labeled TG1, TG2, etc. with sources and grant numbers for each listed in the legend.
- Current positions of the trainees should include their current rank, title, and institutional affiliation.
- (*) For competing renewal applications indicate all trainees who received support from this grant, including those who did not complete the training program for any reason.
- Refer to instructions in the PHS 398 kit, Section V (see: "Trainee Candidates").

[1] For competing renewal applications.

TABLE 10a. PUBLICATIONS (INCLUDING ABSTRACTS) BY CURRENT AND PAST PREDOCTORAL TRAINEES DURING THEIR TRAINING [Alphabetically by Trainee]

TRAINEE NAME	PUBLICATIONS (authors, year, title and journal)

TABLE 10b. PUBLICATIONS (INCLUDING ABSTRACTS) BY CURRENT AND PAST POSTDOCTORAL TRAINEES DURING THEIR TRAINING [Alphabetically by Trainee]

TRAINEE NAME	PUBLICATIONS (authors, year, title and journal)

- For new applications, this information may be provided for predoctoral neuroscience trainees who have worked in participating faculty members' laboratories during the last five years.
- Please label abstracts clearly.
- (*) For competing renewal applications indicate all trainees who received support from this grant.
- Refer to instructions in the PHS 398 kit, Section V (see: "Trainee Candidates").

TABLE 11. ACADEMIC DEPARTMENTS AND DEGREE-GRANTING PROGRAMS AFFILIATED WITH FACULTY AND TRAINEES IN THIS PROGRAM [Alphabetically by unit]

DEGREE-GRANTING UNIT	NUMBER OF FACULTY MEMBERS		NUMBER OF Ph.D. CANDIDATES			NUMBER OF POSTDOCTORAL FELLOWS	
	Total in Unit	Participating in this application	Total in Unit	Eligible[1] and with participating faculty	Supported by this training grant[2]	Total in unit	With participating faculty members

[1] The term Eligible refers to support from this research training grant.
[2] For competing renewal applications.

TABLE 12a. MINORITY PREDOCTORAL APPLICANTS FOR THE LAST FIVE YEARS

YEAR	APPLIED	INTERVIEWED	ACCEPTED	MATRICULATED*	STILL IN THE PROGRAM	DEGREE GRANTED

TABLE 12b. MINORITY POSTDOCTORAL APPLICANTS FOR THE LAST FIVE YEARS

YEAR	APPLIED	INTERVIEWED	ACCEPTED	MATRICULATED*	STILL IN THE PROGRAM

- (*) Outcomes for students not in the program or who did not graduate should be explained in the narrative.
- Refer to instructions in the PHS 398 kit, Section V (see: "Recruitment of Individuals from Underrepresented Racial/Ethnic Groups").

TABLE 13. OUTLINE OF POSSIBLE TOPICS FOR INSTRUCTION IN RESPONSIBLE CONDUCT OF RESEARCH

A.	E.
B.	F.
C.	G.
D.	H.

- Refer to instructions in the PHS 398 kit, Section V (see: "Plan for Instruction in the Responsible Conduct of Research").